

PROCEEDINGS OF LEARNED SOCIETIES.

GEOLOGICAL SOCIETY.

April 15th, 1908.—Dr. J. J. Harris Teall, M.A., F.R.S.,
Vice-President, in the Chair.

The following communication was read :—

‘ Notes on the Geology of Burma.’

By Leonard V. Dalton, B.Sc., F.R.G.S.

The object of this paper is to present the results of geological expeditions in the Irawadi Valley, carried out by the Author and Mr. W. H. Dalton between 1904 and 1906, and to correlate the observations with those made by previous writers, thus summarizing present knowledge of the geology of Burma in general and of the Tertiary System in particular. The classification of rocks arrived at is shown in the following table :—

		FEET.		
Irawadi Series	20,000 (?)	Pliocene	
Arakan Series	{ Pegu Group	7500	Miocene	
	{ Bassein Group	8000	Eocene.	
Axial Series	{ Upper	{ <i>Cardita</i> -Beds Cretaceous	
		{ <i>Halobia</i> -Limestone Triassic.	
	{ Lower.	{ Shales and grits	(?)
		{ Flaggy shales and sandstones.	(?)

The oldest rocks, not comprised in the above synopsis, include representatives of the Silurian, Devonian, and Carboniferous Systems, but little of their detailed geology is known. The *Cardita*-Beds may be correlated with the Cretaceous of India. The ‘Chin Shales’ of Dr. Nœtling seem to form part of the Bassein Group, of Eocene age, which is of much greater thickness than hitherto supposed, and the group rests presumably more or less conformably on the beds below. The fauna is chiefly shallow marine in facies. These rocks flank the Arakan Group on both sides and in the south form the backbone of the range, where they have been considerably metamorphosed. The Pegu Group probably overlaps the preceding and is regarded as of Miocene age, although its fauna has many relationships with that of the French Eocene. *Halobia globulosa* is described as the first European Miocene species recorded from Burma. Estuarine conditions came on towards the close of Miocene time, and, in the estuary of the Pliocene precursor of the Irawadi, anticlinal islands of partly-consolidated Miocene materials were formed. Around, and eventually over these islands a great thickness of fluviatile deposits was laid down, corresponding to the Siwalik Beds of the Indian Peninsula. Finally, post-Pliocene denudation and upheaval revealed the Miocene islands as inliers, while the Irawadi has left its gravels in patches throughout the region. A list of fossils is given, and the species new to Burma, some of them new to science, are described.